



# “Candido’s List”: the workers of Collotta Cis & Figli at Molina di Ledro in Trento Province, Italy. A tale of magnesia, asbestos and work

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## Abstract

The study entitled “Candido’s List” (*La Lista di Candido*) is not the work of the three authors alone. A good part of the community is entitled to feel itself coauthor, each for his/her own part, of a research project that has succeeded in blending a variety of different ingredients: history, entrepreneurship, the industrialization of the Trento Province with all its high and low points, personal life stories, medicine, genius, work, women’s emancipation, the past but also the present and future. The research comprises an eloquent collection of memories and a variety of iconographic materials; it has now become a book and a travelling exhibition containing the accounts of the people who worked at the Collotta-Cis factory in Molina di Ledro. It starts with the brilliance of Pier Antonio Cassoni, who in 1816 deposited the first patent in the world for the extraction of magnesium carbonate, and closes with the decontamination of the factory site in the late 1980s. A needful section has been set aside for the painful facts relating to the processing of asbestos fibre; a final space, midway between an artistic reading and an interpretation for the future, has seen the involvement of the Circolo Fotoamatori di Ledro, with a photographic itinerary enabling the reader to “virtually” enter the remaining worksites and listen to these spaces “tell” their stories after years of silence. A story in black and white, where the two tones are also messages for reading a complex story, one that it is important to remember.

## Key words

- asbestos-amosite
- cancer
- mesothelioma
- environmental cleanup
- population involvement

## RESEARCH

The research project has been planned and carried through by the Araba Fenice association in Arco. *La Lista di Candido. I lavoratori della Collotta & Cis di Molina di Ledro tra magnesia, amianto e lavoro* [1], has resulted in the gathering of over thirty filmed interviews and a large number of hitherto unpublished photographic materials, as well as historical and archival contributions. The work has benefited from the support of the Fondazione Caritro and the collaboration of the Circolo Fotoamatori Valle di Ledro. Inspiration for this title comes from *Schindler’s List*, the film illustrating the story of the list of Jews that Oskar Schindler supplied to the Nazis to have them work in his factory in order to save them. In our local echo of this story, in the 1980s, Candido Zendri, a retired councilor of Molina di Ledro, instead gave a young occupational doctor named Giuseppe Parolari a list of names of the workers of Collotta Cis & Figli

(hereafter Collotta-Cis) to enable him to start arranging interviews in a systematic way and so understand why so many of these workers had health problems and suffered early deaths. We started from here, with the people who used to work there, with the elderly who had preserved their memories. Working back through time, we delved through the documents preserved in the historical archive of the Municipality of Ledro which reconstruct the urban development of the area. With the help of *Circolo Fotoamatori*, we explored and photographed the ruins of what remained and in one room we tracked down and, incredibly, recovered a “treasure”: the office of the Cis Colletta and its small archive (1960s-1980s) which would otherwise have been destroyed.

In Valle di Ledro a strong contrast developed in the last century and survived into the beginning of this century, lingering in the minds of the local population: the contradictions between gratitude towards a factory that

had given work for decades and helped many families overcome misery and hunger on the one hand and, on the other, an aversion to that same factory which, because of the asbestos processed there over a period of 45 years, had generated suffering, grief and fear in so many families. This contrast could be overcome only by facing both sides with serenity and calmness, because they belong to the same, single history of both factory and the valley. The research then, and the resulting book (Figure 1) as well as the exhibitions on the subject, have had and have an almost cathartic purpose; the aim has been to set in motion a process of collective and individual “liberation” from conflicting situations, enabling the re-emergence of the reasons for the contrast and suffering from the memory of the people of Ledro so these can be faced and finally erased.

### THE HISTORY

1816 in the southern part of Tyrol, a short distance from Garda Lake. This area is still part of the Austro-Hungarian Empire. For the first time in the history of chemistry, in his laboratory in Valle di Ledro, Pier Antonio Cassoni extracted magnesium carbonate from dolomite rock [2]. He then equipped his laboratory with the means to prepare magnesium carbonate, which was obtained by treating dolomite rock, in which Valle di Ledro is rich, with a chemical process. The procedure consisted of calcining dolomite and dissolving the magnesium part in carbonic acid. A similar procedure would be adopted a few years later by the Englishman Pattinson, from whom it derives its name, since Cassoni never patented it (Pattinson Method). Right from the outset, Cassoni brought to bear his skills to give life to different products, such as Magnesia fluida Dolomina; he also opened the magnesia thermal baths offered in single cabins equipped with a bathtub.

This marked the beginning of an epic which, fueled by the entrepreneurship of a number of Valle di Ledro's citizens [3], led within a century to the blossoming of about a dozen industries dedicated to the transformation of dolomite rock. They were small factories that nevertheless gained international recognition. They were new in the local work market and soon became a workplace for several dozen inhabitants of the valley, which is small and out of the way with respect to the main trunk roads of the Trentino.

Cassoni began his activity in 1816, while the *Ditta Eredi Cassoni*, also in Pieve di Ledro, dates from 1849. In 1875, the first production centre opened in Molina di Ledro, and Pietro Silvestri inaugurated the second one in 1878. In 1880, partly because of a rise in tariffs, a factory was opened “in Italy” at Brenzone. Meanwhile, Comboni had been in production since 1862 on the opposite Garda shore at Limone sul Garda, made possible by industrial espionage that had brought the “recipe” for the production of magnesium carbonate to the territories of the Kingdom of Italy. In 1900, the production of Collotta Cis & Gigli began in Molina.

After the upheavals of the First World War, that brought South Tyrol within Italian borders, and following the death of one of the partners, Gigli, it became *Collotta Cis & Figli* [4]. This factory would give employ-



**Figure 1**

The cover of the book shows a worker in headscarf shaping the pats of insulation containing asbestos fibre.

ment to over 400 workers in the years between 1922 and 1978, and it launched the production of magnesium carbonate on a global market. A huge range of products is representative of this active, dynamic factory, which during the decade between 1960 and 1970 was connected with all five continents [5]. Collotta-Cis “put food on the table” for many families in the Ledro valley, and witnessed the years of the first strikes, of the emancipation of women. It also indelibly linked its history to that of the processing of asbestos fibre, which performed so well on the market but was, at the same time, so carcinogenic and deadly for a number of the factory's workers [6].

New arrivals joined the workforce while very young, especially the women who often inherited their grandmother's place. The pay served to make meagre ends meet in the family budget, but the help it gave was paid for dearly in terms of work, life, safety and health. However, it was the only possible way to avoid the inevitable choice between poverty and migration. For many people, working in a factory was seen as a dream; the company also represented the meeting point of the valley. Social cohesion was created here and love and new friendships forged. The first factories redeemed most of the population of the mountain valleys from isolation, thus avoiding a process of wretched depopulation and consequent further impoverishment of the mountain region. Indeed, when Collotta-Cis was founded, the Ledro valley was poor and the soil yielded little to peasants. A place in the factory assured security for many families [7].

After the closure of the establishment the aftermath of the unhealthy work that had been done there continued for many years on the backs of those who had worked there, in the form of lung tumors and diseases derived from rock dust and asbestos, while the ghost of the factory remained standing as a memorial of the past times.

Thanks to the stubbornness of a young occupational doctor, Dr. Giuseppe Parolari, and of Molina di Ledro's mayor, Agnese Rosa, the way was opened for the first health surveys. This led to a series of epidemiological investigations and environmental monitoring, and even-

tually to the total dismantling of the plants [8], see also the paper by Parolari, in this same issue, for a thorough reconstruction of epidemiological, industrial hygiene and occupational medicine studies.

### MEMORY: BLACK AND WHITE

Black and white. Two colours that can be useful in telling this story, which is one of products, of men, places and tales; but also, metaphorically, as the colours serve to illustrate contrasting feelings and reflections. Black and white.

The white of magnesium carbonate. An alchemy leads to the separation of the magnesium carbonate from the calcium carbonate present in dolomite rock. Dolomite, the rock of these mountains: it too is dazzling white if pure. Baking, calcination, boiling, drying. In a few moves you can make the white pats of matter that end up laid out on racks. The white is that of a product that for practical purposes was called "borotalco", ground with a special mill from Breda and transported in tankers; it was also the white of the fine "grit" for pottery transported in tipper trucks; and finally it was the white of the so-called "grain of rice". The black, on the other hand, was that of the dangerous shadow cast by asbestos. It offers high performance and is an exceptional material for insulation, but it comes with a black shadow. Asbestos is itself not physically black, but black is an apt colour for what is still happening internationally today, in a world divided into two broad sectors. A rich sector that can afford to maintain certain standards, and the poor or impoverished world that cannot afford these things. The production and use of asbestos has been forbidden since 1992 in Italy, as has anything that might expose individuals to it. It has been banned in almost all industrialized nations even though there are still countries with huge mines that extract it and export it to third-world countries.

In *La Lista di Candido* there is white, an image of human genius, the beginning and nourishing of an industry that shaped the Ledro valley. It is the genius of Pier Antonio Cassoni who in 1816 started the production of magnesium carbonate. It is human genius, mixed with the entrepreneurship of local families: the Collotta, the Gigli, the Cis, the Zecchini, who enabled the flourishing of the magnesia industry in Valle di Ledro. First Pieve, then Bezzecca, Molina, again Bezzecca; these were joined by Brenzone and Limone (then in the Kingdom of Italy). In just over a century, at least eight businesses linked to magnesium carbonate developed in the Ledro district. This was a story written at home, in the community, not dropping "from above" but strongly rooted in the territory. A genius that was replicated in the production processes, that were innovative and cutting-edge for those times, especially if we consider just where the factories were located: in an isolated valley in the Trentino, not in a place imbued with an industrial culture like the big towns in a major valley or on the Po plains. Those were years of hunger, of great hunger, during which the valley, exhausted by poverty, survived thanks to migration. As soon as they were formed, families were destroyed because the men had to look abroad for the sustenance that was lack-

ing in the valley. They came back old, with a tiny nest egg that assured their old age. And in those times of frightful misery, the Collotta-Cis factory represented a truly incredible fortune: those able to find work there counted themselves very lucky.

In *La Lista di Candido* there is black within, reflecting the drama that unfolds as awareness grew that the product being processed was also a cause of death. The year 1928 saw the start of a production that would indelibly mark the factory; while on the one hand the new product brought job opportunities and well-being to over a hundred workers and their families, as well as an appreciable export for a factory located in an outlying valley, on the other it marked the lives of those who worked the asbestos fibre, and of those who breathed it in even though they never set foot in the factory. Cases of asbestosis reported to the National Institute for Insurance against Accidents at Work (INAIL - Istituto Nazionale Assicurazione Infortuni sul Lavoro) already recognized as an occupational disease (although not systematically), began to be attributed to Collotta-Cis. Medical records, X-rays, tumors (the first mesotheliomas) sometimes alarmed the workers themselves and the people of Molina. Therefore, in our story there is the black of the disease, arising from a job that had given bread to our people, but a bread that came with a high cost in terms of health and suffering.

This suffering was alleviated in a certain sense by the financial payouts given to about a hundred families. These have benefited from the studies that have given some justice to all those who had become seriously ill or lost their lives simply as a result of having worked in that factory, alleviating the lot of many workers and their family members who had received no justice until then. A justice recognized through an invalidity pension or widow's or widower's benefit.

The white of our story is also that of the face and hair and smocks of the *fabricote* (the factory's female workers), who were daily covered with a layer of dust that did not stop on the surface of their clothes. From a testimony: "*You know that Giulia comes home always white. So give her a smock! Like the masks, too: those they use nowadays have orange sponge and elastic bands. You could put a handkerchief inside it, but even so, when you took it off, you had all the white marks of the dust*".

There is the white of the factory floors when the magnesia pats fell wet to the ground coating the Stella department; the white of the racks during full production; the light pats rested on boards while awaiting further processing. It is the black "*of the Negri, of Pistorel, of Vito Zecchini. They were black from tip to toe because they would come to take the trolleys and would actually go into the oven: they were surrounded by a smell of gas. It was an acidic smoke, but all the work was done without a mask*".

There is the white that emerges from the decision to pick up the thread of the story, which arises from the act of writing down the interviews. This is how the story has the opportunity to tell everything. Beautiful things, sad things, facts one may wish to be able to forget or facts that should be framed and hung on the wall because even after tens of years they can raise a smile or a trigger a sad memory. The colour of the pages yet to be



written is white too because *La Lista di Candido* – book and exhibition – is not a finished-and-done project but an important part of a work that we can patiently continue together. There is also the black of silence that could have been maintained regarding this important piece of Ledro's history. The black of the shadows that could remain such if we were not to try together to recount what has been unsaid but that weighed heavily. There has been no pre-packaged recipe for the work. The initial silence was subdivided into many detailed aspects that were recomposed only at the end, like in a huge puzzle. There is the black of a social and scientific subject that is difficult to deal with. It could have been black and instead it has turned out white, thanks in part to the fact that the manners adopted to tell the story were simple, but not simplistic.

Black is the colour of the carbon paper that emerged together with hundreds of other sheets from the forgotten archive of the Collotta-Cis, incredibly rediscovered and saved, almost as though to tell us that the story must certainly be preserved but must above all be told: because the risk exists that all those folders – images of the past – remain where they are and that the dust that ages and ruins things will no longer be removed from them. So it is a matter of telling the past to preserve the memory of places, facts and voices. It is the white of the need to have instead an awareness of the wealth of knowledge and memory that must help the community throw light on its past but above all on its future. Could the ruins that remain not constitute a shared architectural itinerary aiming at a revival that focuses on the workers' labour? It is the black of the quarries, of the tunnels and underground warrens that risk becoming an unrecognizable place, without identity, agreeable, almost something to be kept hidden.

Is the result of all this a grey story? No, we believe that what has resulted from the project is a story that is above all true and, precisely for this reason, black and white. These colours have left their clear mark on the

different moments of conveying the study to the community. On the one hand, the expectation for the publication of the book has always been palpable, as also for the inauguration of the exhibition; equally evident was the emotion caused by remembering those “no longer with us”, an emotion triggered by a recalled memory, an object, a photo. Contrasting feelings seemed to have filled the hearts and minds of those who spoke to us: on the one hand the desire to “hear themselves telling their own story”; on the other the awareness that something sad might emerge. Black and white are not just metaphors: they have mixed and given life to the eloquent historical photographs or those taken in an artistic and modern key by the *Circolo Fotoamatori Valle di Ledro*. Black and white together make up the X-rays of the factory workers' chests. Black and white together have been the story of a place in which material was produced for pharmaceutical purposes but also one that killed. This is a story in which black and white mix, even today, but mysteriously they remain separate colours, each of the two highlighting the other.

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### Conflict of interest statement

There are no potential conflicts of interest or any financial or personal relationships with other people or organisations that could inappropriately bias the conduct and findings of this study.

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